

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith, which place the application into condition for allowance.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-13 and 23-29 are currently pending in this application. Claims 1-13 and 23-29 are amended without prejudice hereby. Claims 3, 5, 9-12, 24, and 28-29 are withdrawn from further consideration. It is submitted that the withdrawn claims should be reconsidered and reintroduced into the application when the independent claims from which they depend are found allowable.

II. CLAIM REJECTIONS UNDER 35 U.S.C. §112

Claims 1, 2, 4, 6-8, 13, 23 and 25-27 are rejected under 35 U.S.C. §112, second paragraph. The Office Action alleges the terms are indefinite because the distinction between a continuous loop fabric and a made endless fabric is unclear. Applicants respectfully disagree. Applicants direct the Office Action's attention to the non-limiting use of such terms at page 7, line 24 to page 8, line 7, which states:

When employed in a system such as that shown in Figure 3, the fabric of the invention would be formed into a **continuous belt** and the belt would take the place of wire 12.

Hydroentangling support fabrics according to the present invention are preferably woven from monofilaments in both the warp and weft directions. As is well known to those of ordinary skill in the art, the warp monofilaments lie in the cross machine direction (CD) of the fabric produced by either **endless or modified endless weaving, while they lie in the machine direction (MD) if the fabric is flat woven**. On the other hand, the weft monofilaments lie in the machine direction (MD) of a fabric produced by **endless**

**or modified endless weaving, but in the cross machine direction
(CD) of a flat woven fabric.**

Emphasis added. The quote demonstrates that an ordinarily skilled artisan is familiar with terms such as “made endless” (i.e., flat woven and later joined) and “continuous loop” (which includes fabrics that are woven endless).

III. CLAIM REJECTIONS UNDER 35 U.S.C. §§102 & 103

Claims 1, 2, 4, 6-8, 13, 23 and 25-27 are rejected under 35 U.S.C. §102(b) or, in the alternative, over 35 U.S.C. §103 over U.S. Patent No. 5,857,497 to Gaisser. Claims 1 and 23 are independent.

Independent Claim 1 recites: “An apparatus for the production of a hydroentangled nonwoven product comprising a hydroentangling support fabric.” Claim 23 recites: “A support fabric in a hydroentangling apparatus.” The Office Action admits that Gassier does not disclose a hydroentangling fabric or device. Instead the Office Action alleges the recitation is an intended use, and that Gaisser’s fabric is capable of being used in hydroentangling. For the purposes of clarification, the claims recite a hydroentangling apparatus. Nonetheless, for the reasons given below, Applicants urge that Gassier’s fabric is not capable for use for hydroentangling.

Gassier discloses a papermaking fabric and in particular, a drying fabric. Hydroentangling and papermaking processes and devices have wholly different needs. For a non-limiting example that highlights such difference, Applicants draw attention to paragraph 31 of the publication of the Specification (hereafter the Specification):

The fabrics of the invention may be formed as single, double or triple layer weaves.... In such embodiment, the fibers of the nonwoven are supported by the round monofilaments of the forming side while the flat monofilaments promote **greater reflective water flow**, and therefore **greater reflective entanglement energy**, the fabric promotes **greater entanglement**

of the fibers making up the nonwoven, and thereby provides for a stronger finished nonwoven. That is, when water is directed at the fabric in a direction perpendicular, or substantially perpendicular to the plane in which the flattened yarns lie, some **water will pass through the forming surface layer and intermediate layer, reflect off the wearside layer, and further entangle the fibers.**

Thus the design of the hydroentangling fabric requires, inter alia, permeability at the forming site surface and the intermediate layer, and yet must reflect at the wearside layer. Moreover, the fabric must be designed to provide the appropriate reflective water flow to effect entanglement.

Gassier, on the other hand explains how its papermaking fabrics must have different structural qualities. At Col 3, lines 16-19, Gassier states:

A fabric having increased fabric stability in the machine direction is provided yet having **a high degree of openness and permeability** in a range greater than thirty percent of the total fabric area.

And at col 4, lines 26-28

The drying process is outwardly from the heated cylinders through the paper web and through the dryer fabric. Thus **sufficient permeability must be had in order to facilitate drying of the fabric.**

And at Col. 6, lines 8-11

Increased structural stability is provided in the machine direction **without decrease in the permeability or open area** of the fabric.

And at Col. 1, lines 30-36

For drying purposes, the carrier fabric must have **a high degree of openness and air permeability so that sufficient air is delivered through the base fabric and the embossed layer, which is also permeable for drying.** Carrier fabric must have sufficient load bearing capability for bearing the loads in the machine direction which are the most severe.

Thus, it is clear that Gassier's highly permeable papermaking fabric is in no way designed for hydroentangling. Accordingly, Gassier does not anticipate or render obvious independent claims 1 or 23. As all the pending claims ultimately depend from independent claims 1 or 23, and as nothing in Gassier cures its deficiency as applied to the independent claims, Applicants submit that all the claims are in condition for allowance and urging reconsideration and withdrawal of the rejections thereto.

Claims 1-2, 4, 6, 13, 23 and 25 to 27 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,142,72 to Greenway in view of U.S. Patent No. 4,345,730 to Leuvelink. Applicants traverse and respectfully request reconsideration and withdrawal of these rejections.

Independent claims 1 and 23 each recite "support fabric" for hydroentangling that is "in a continuous loop or made endless." Regarding Greenway, the Office Action admits that Greenway is silent on "conveyor belt materials," citing broadly to hydroentangling devices in combination with endless conveyor belts. As Applicants have explained in prior responses, Greenway does not use its conveyor belts for hydroentangling. Col. 4, line 33-46 of Greenway, cited by the Office Action, shows pre-wet wires that feed a randomized web to hydroentangling modules (18, 20). Greenway is not only silent on the claimed flat filaments, but is also silent on a support fabric for use in a hydroentangling apparatus, and still more silent on a hydroentangling support fabric that is endless or in a continuous loop.

As to Leuvelink, the Office Action fairly admits, as it must, that the reference in no way discloses a support fabric for hydroentangling. Instead, it treats hydroentangling as "an intended use" and regards Leuvelink's spiral-wound as "a conventional teaching showing that it is known in the conveyor belt and to use a fabric comprising flat filaments." With all due respect, the Office Action misinterprets the teaching of Leuvelink.

Column 4, line 63 to Column 5, line 23 of Leuvelink, cited by the Office Action, explains that its invention is described in the context of papermaking. As explained above with respect to Gassier, papermaking fabrics and fabrics used in hydroentangling have differing structures; such terms in a claim recite more than a mere "intended use." They reflect structural differences. In order to advance prosecution, the claims now recite a hydroentagling apparatus.

Moreover, to the extent Leuvelink goes outside papermaking, it still limits itself to a spiral link fabric, allowing only some variation for spacing between successive coils, or the introduction of deformation of the hinge wire. Only within this limited structured does Leuvelink allow for the use of flat monofilaments. The Office Action proffers no evidence or reason showing that ordinarily skilled artisan use would a spiral link fabric in a hydroentangling apparatus absent Applicant's own disclosure of the same in the present application. The Supreme Court in *KSR* has warned against the dangers hindsight reasoning, especially when substitutes are not the result of "common sense." Applicants respectfully note that *KSR v. Teleflex* ("KSR") cautions that hindsight reasoning based on the Applicants' own disclosure distorts analysis: "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant on ex post reasoning." Emphasis added. As MPEP 2174 "Legal Concept of Prima Facie Obviousness" states:

[T]o reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. **Knowledge of applicant's disclosure must be put aside in reaching this determination**, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the invention. **The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very**

nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

The Office Action also alleges the motivation for combining Leuvelink's flat monofilaments with Greenway's conveyor belts is "the expectation of successfully practicing the invention of Greenway." However, the Office Action's reasoning is improper as, assuming for the sake of argument that Greenway's conveyor belts are for hydroentangling, Greenway certainly does not teach that its invention cannot be successfully practiced. To the contrary, Greenway assumes the use of conventional hydroentangling fabrics, i.e. those with all round yarns. It certainly does not teach, implicitly or expressly, that the successful operation of its entangling member, conveyor means, or curtain above its conveyor means is in any way dependent on flat monofilaments.

In view of Greenway's reliance on conventional nonwoven production lines (see col. 2, lines 11-17), an ordinarily skilled artisan would have no recourse, reason or need to turn to Leuvelink's spiral-link fabric, embodied exclusively as a papermaking fabric.

Accordingly, Applicants believe claims 1 and 23 are presently in condition for allowance and propose urging reconsideration and withdrawal of the rejections thereto. As all the remaining pending claims ultimately depend from these independent claims, and as nothing in the art of record cures the deficiency of the Greenway and Leuvelink references, Applicants urge reconsideration and withdrawal of these rejections as well.

Claims 1-2, 4, 6, 23 and 25-27 are rejected under 35 USC § 103 (a) over U.S. Patent No. 5,883,022 to Elsener in view of U.S. Patent No. 3,884,630 to Schwartz or U.S. Patent No. 4,104,814 to Whight. Applicants traverse and respectfully request reconsideration and withdrawal of the rejections. Elsener is a textile fabric for use in clerical areas or clean rooms.

The towel is for drying hands and skin. It has absolutely nothing to do with industrial process fabrics whatsoever. Schwartz and Whight also disclose hand towels. In view of the extensive discussions of hydroentangling fabrics above and in prior responses, it almost goes without saying that an ordinarily skilled artisan would not look to hand towels for teachings on industrial process belts.

Thus nothing in Elsener, Schwartz, or Whight discloses or otherwise renders obvious each of the limitations of the independent claims. Dependent claims 2, 4, 6-8, 13 and 25-27 depend from either claim 1 or claim 23 discussed above, and are therefore patentable for similar reasons.

As nothing in the art of record cures this deficiency, Applicants propose urging all the claims are in condition for allowance.

In the event that the Examiner disagrees with any of the foregoing comments concerning the disclosures in the cited prior art, it is requested that the Examiner indicate where in the reference, there is the basis for a contrary view.

CONCLUSION

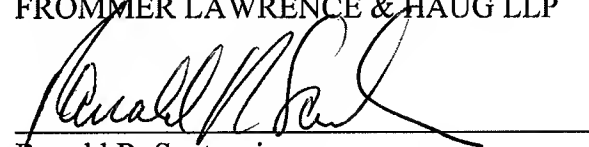
In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable over the prior art, and early and favorable consideration thereof is solicited.

Please charge any fees incurred by reason of this response and not paid herewith to Deposit Account No. 50-0320.

If any issues remain, or if the Examiner has any further suggestions, the Examiner is invited to call the undersigned at the telephone number provided below. The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By:

A handwritten signature in black ink, appearing to read "Ronald R. Santucci", is written over a horizontal line.

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